

DEPARTMENT OF THE NAVY

BUREAU OF NAVAL PERSONNEL 5720 INTEGRITY DRIVE MILLINGTON, TN 38055-0000

> BUPERSINST 1401.4D PERS-45E 17 Mar 08

BUPERS INSTRUCTION 1401.4D

From: Chief of Naval Personnel

Subj: ASTRONAUT CANDIDATE SELECTION PROGRAM

Encl: (1) Sample Application Format

- 1. <u>Purpose</u>. To publish information concerning the Astronaut Selection Program and provide procedures for application to the National Aeronautics and Space Administration (NASA) Space Shuttle Program.
- 2. Cancellation. BUPERSINST 1401.4C.
- 3. <u>Summary of Changes</u>. NASA has updated their Crewmember Medical Standards and Naval Aerospace Medical Institute (NAMI) has revised their screening requirements. These recent updates resulted in the following changes:
 - a. Near Point of Convergence examination.
 - b. Slit Lamp examination.
 - c. Auditory Acuity.
 - d. Cycloplegic Refraction examination.
 - e. Height for mission specialist.
 - f. Use of either SF 88 and SF 93 or DD 2807-1 and DD 2808.
 - g. Removal of JSC Form 465.
- h. Added requirement that applicants who have completed PRK or LASIK are to submit pre-operative evaluation, post-operative follow-up report, and computer laser operative reports with their medical screening package to NAMI per paragraph 8f.
- 4. <u>Background</u>. NASA will periodically select pilot and mission specialist astronaut candidates for future shuttle teams. In a

memorandum of agreement between the Department of Defense (DOD) and NASA, a provision is made for highly qualified Navy personnel to participate in the nationwide Astronaut Candidate Selection Program. Successful applicants will be assigned to positions located at Lyndon B. Johnson Space Center in Houston, TX, and be involved in a 2-year training and evaluation program, after which they will enter the astronaut corps and be eligible for assignment as pilot and mission specialist astronauts on future missions.

- 5. General. Interested personnel who desire to become a pilot or mission specialist astronaut and who meet selection criteria are encouraged to submit an application via their commanding officer and Navy Personnel Command (NAVPERSCOM) following applicable procedures in this instruction. NASA has emphasized their desire for maximum participation by all qualified personnel. A Navy selection board will identify the best qualified nominees for the available astronaut positions. A list of best qualified astronaut candidate nominees and their application packages will be forwarded to NASA for final consideration. NASA will select Navy astronaut candidates from this list.
- 6. <u>Pilot Astronaut Qualification Requirements</u>. U.S. Navy applicants for the Pilot Astronaut Candidate Program must meet the following minimum qualifications:
- a. Be a naval aviator on active duty with a minimum of 5 years active commissioned service.
- b. Have earned a bachelor's degree from an accredited institution in engineering, biological or physical science, or mathematics. An advanced degree or equivalent experience is desired. Quality of academic preparation is important.
- c. Have acquired a minimum of 1,000 hours pilot-in-command time in turbo-jet or turbo-fan powered fixed-wing aircraft. Flight test experience is highly desired.
- d. Be able to pass the NASA long-duration space flight physical which includes the following specific requirements:
 - $\begin{array}{ccc}
 \text{(1) Height:} & \underline{\text{Minimum}} & \underline{\text{Maximum}} \\
 \hline
 62 \text{ inches} & 75 \text{ inches}
 \end{array}$

- (2) Visual Acuity: Distant and near visual acuity must be correctable to 20/20 in each eye. All applicants must complete a cycloplegic refraction examination. Note: The refractive surgical procedures of the eye, PRK and LASIK, are now allowed, providing at least 1 year has passed since the date of the procedure with no permanent adverse after effects. Additional standards include: Pre-operative cycloplegic error shall be between +4.00 and -8.00 sphere with astigmatism 3.00 diopters or less in the minus cylinder format. Refractive error (distant vision) -cycloplegic total refractive error must be between +3.50 and -4.00 diopters in any meridian. Astigmatism may require up to 2.00 diopters of cylinder correction. Anisometropia of up to 2.50 diopters is allowed. Applicants who have completed PRK or LASIK are required to submit pre-operative evaluation, post-operative follow-up report, and computer laser operative reports with their medical screening package to NAMI per paragraph 8f.
- (3) Blood Pressure: Preponderant systolic may not exceed 140 mm Hg, nor diastolic exceed 90 mm Hg, measured in a sitting position.
- (4) Auditory Acuity: Any significant hearing loss is disqualifying, as indicated below:

Frequency (HZ)	<u>500</u>	1000	2000	3000	4000
Maximum dB loss					
Both ears	30	25	25	35	50

- 7. <u>Mission Specialist Qualification Requirements</u>. U.S. Navy applicants for the Mission Specialist Astronaut Candidate Program must meet following minimum qualifications:
- a. U.S. citizen on active duty with minimum 5 years active commissioned service.
- b. Earned a bachelor's degree from an accredited institution in engineering, biological or physical science, or mathematics. Degree must be supplemented by at least 3 years relatable experience. An advanced degree is desired and can be substituted for experience requirement (master's degree one year; Ph.D. degree, 3 years). Quality of academic preparation is important.

c. Be able to pass the NASA long-duration space flight physical, which includes the following specific requirements:

(1)	Height:	Minimum	Maximum
		62 inches	75 inches

- (2) Visual Acuity: Distant and near visual acuity must be correctable to 20/20 in each eye. All applicants must complete a cycloplegic refraction examination. Note: The refractive surgical procedures of the eye, PRK and LASIK, are now allowed, providing at least 1 year has passed since the date of the procedure with no permanent adverse after effects. Additional standards include: Pre-operative cycloplegic error shall be between +4.00 and -8.00 sphere with astigmatism 3.00 diopters or less in the minus cylinder format. Refractive error (distant vision)-cycloplegic total refractive error must be between +5.50 and -5.50 diopters in any meridian. Astigmatism may require up to 3.00 diopters of cylinder correction. Anisometropia of up to 3.50 diopters is allowed. Applicants who have completed PRK or LASIK are required to submit pre-operative evaluation, post-operative follow-up report, and computer laser operative reports with their medical screening package to NAMI per paragraph 8f.
- (3) Blood Pressure: Preponderant systolic may not exceed 140 mm Hg, nor diastolic exceed 90 mm Hg, measured in a sitting position.
- (4) Auditory Acuity: Any significant hearing loss is disqualifying, as indicated below:

Frequency (HZ)	<u>500</u>	1000	2000	3000	4000
Maximum dB loss					
Both ears	30	25	25	35	50

8. Application Procedures

a. Selection board convening date will be announced by message. Applications with all enclosures must be submitted in format shown in enclosure (1) and must be received by the NAVPERSCOM Customer Service Center (CSC) no later than the due date indicated in the announcement message.

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b. Applications sent to NAVPERSCOM via U. S. Postal Service should use the following address:

Commander, Navy Personnel Command (PERS-45E)
Astronaut Candidate Selection Board (Board #295)
Customer Service Center
5720 Integrity Drive
Millington TN 38055-6300

c. Applications sent to NAVPERSCOM via FEDEX/UPS/DHL should use the following address:

Commander, Navy Personnel Command (PERS-45E)
Astronaut Candidate Selection Board (Board #295)
Customer Service Center
5640 Ticonderoga Loop Bldg 768 RM E302
Millington TN 38055-6300

- d. Receipt of correspondence should be confirmed with the CSC via one of the following methods:
 - (1) Online Web request: www.npc.navy.mil/AboutUs/NPC/CSC/
 - (2) Phone toll free: 1 (866) U-ASK-NPC (1-866-827-5672)
 - (3) Phone: (901) 874-5672/DSN 882
 - (4) E-mail: CSCmailbox@navy.mil
- e. In addition to submitting a package to NAVPERSCOM, all applicants must apply for astronaut candidate selection on the USA Jobs Web site, http://www.usajobs.gov. Once NASA posts the vacancy announcement on USA Jobs, candidates will apply for the announcement by building an electronic resume. This resume and copies of all forms completed on the USA Jobs Web site must be included with the application package to NAVPERSCOM.
- f. Copies of SF 88, Medical Record Report of Medical Examination or DD 2808, Report of Medical Examination, documenting Class I Medical Service Group 1 flight physical, SF 93, Report of Medical History or DD 2807-1 Report of Medical History, EKG results, Thyroid Function Test results (TSH, T3, and T4), Cycloplegic Refraction, Near Point of Convergence, and Slit Lamp examination results, PRK/LASIK pre-operative

evaluation, post-operative follow-up report, and computer laser operative report (if applicable), and any other supplemental medical forms required by NASA Jobs Web site must be forwarded to Naval Aerospace Medical Institute, ATTN: NAMI Code 342, 340 Hulse Road, Pensacola, Fl 32508-1071. Packages may also be submitted via fax at (850) 452-2957/DSN 922, or as e-mail attachments to physquals-nomi@med.navy.mil. Copies of the SF 88, DD 2808, SF 93, and DD 2807-1 may be obtained at your local military treatment facility or downloaded as stated in paragraph 11. Copies of all above medical screening forms must be included with the application package forwarded to NAVPERSCOM. Packages must be received by the date indicated in the announcement message.

- 9. <u>Command Endorsement</u>. Commanders are encouraged to ensure widest dissemination of this program. Command endorsement of applications is required and should include a personal assessment of applicant as a prospective astronaut and a recommendation for the requested duty.
- 10. Updated and supplemental information is available on the NAVPERSCOM Astronaut Candidate Selection Board Web page, www.npc.navy.mil/Boards/Administrative/NASAAstronaut.htm.
- 11. Forms. SF 88 (Oct 94), Medical Record Report of Medical Examination, SF 93 (Jun 96), Report of Medical History, DD 2808 (Oct 05), Report of Medical Examination, and DD 2807-1 (Mar 07), Report of Medical History, are available at http://www.dtic.mil/whs/directives/infomgt/forms/formsprogram.htm.

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E. MASSO Rear Admiral, U.S. Navy Deputy Chief of Naval Personnel

Distribution: Electronic only, via BUPERS Web site http://buperscd.technology.navy.mil

SAMPLE APPLICATION FORMAT

From: Rank, Name (First, Middle, Last), SSN (Last 4)/Designator

To: Commander, Navy Personnel Command (PERS-45E)

Via: Commanding Officer,

Subj: APPLICATION FOR ASTRONAUT CANDIDATE SELECTION

Ref: (a) BUPERSINST 1401.4D

- Encl: (1) SF 88, Medical Record Report of Medical Examination or DD 2808, Report of Medical Examination
 - (2) SF 93, Report of Medical History or DD 2807-1, Report of Medical History
 - (3) EKG results
 - (4) Thyroid Function Test Results (TSH, T3, and T4)
 - (5) Cycloplegic Refraction, Near Point of Convergence and Slit Lamp examination Result
 - (6) PRK/LASIK Reports (if required)
 - (7) Copy of College Transcripts
 - (8) USA Jobs Forms
- 1. Per reference (a), enclosures (1) through (8) are submitted and I request to be considered for the Pilot/Mission Specialist Astronaut Program (as applicable) with National Aeronautics and Space Administration (NASA).
- 2. Current military address:
- 3. Date of commission:
- 4. Instrument rating: (if applicable)
- 5. Flying experience: (if applicable)
 - a. Total hours:
 - b. First pilot total hours:
 - c. First pilot hours within last 12 months:
 - d. First pilot hours in jet aircraft:
 - e. First pilot hours in jet aircraft within last 12 months:

Subj: APPLICATION FOR ASTRONAUT CANDIDATE SELECTION

- f. Aircraft in which current (as of application date):
- g. List aircraft flown by type, total hours, date last flown:
 - h. Test pilot school/graduate date:
 - i. Test pilot experience (number of years):
 - j. Aviation combat experience:
- 6. Education Background:
 - a. Service schools:
 - b. College(s) attended:
 - (1) Degree(s) and year of graduation (major/minor):
- (2) Grade point average based on a 4.0 system (undergraduate and graduate):
- 7. Describe experience/technical competence (mission specialist only):
 - a. Post-graduate job experience: (degree related)
 - b. Experience in aeronautic/space related fields:

(Signature)	